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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,790	02/07/2002	John Marshal Reed	112056-0033	2877

24267 7590 12/11/2006  
CESARI AND MCKENNA, LLP  
88 BLACK FALCON AVENUE  
BOSTON, MA 02210

EXAMINER
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ELAMIN, ABDELMONIEM I

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

10/071,790

REED ET AL.

Examiner

Art Unit

Abdelmoniem Elamin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-8 and 10-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-8, 10, 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Narayanaswamy et al, US. Pat. No. 6,275,931 (cited in a previous office action).

3. Claims 1, 13, Narayanaswamy teaches a removable nonvolatile memory device [*flash memory 20 of Fig. 2*] for use in a storage system having an operating system kernel [title, abstract], comprising:

a plurality of partitions [*blocks 22 and 24 of Fig. 2*], each of the plurality of partitions capable of storing differentiated information [*abstract*];

a first kernel image, the first kernel image stored in a first partition of the plurality of partitions wherein the first kernel image is an upgrade kernel [*the new upgraded cod in block 24 of Fig. 2*]; and

a second kernel image, the second kernel image stored in a second partition of the plurality of partitions [*the boot code in block 22 of Fig. 2*], wherein the second kernel image is a last known good kernel [*the active boot code stored in block 22 of Fig. 2*].

4. Claims 3, Narayanaswamy teaches a set of boot instructions including instructions for booting from the first kernel image [col. 2, lines 52-57].

5. Claim 4, 7, Narayanaswamy teaches instructions for booting from the second kernel image if an error event occurs during booting from the first kernel image [*col. 4, lines 4-29*].
6. Claim 5-6, 11-12, Narayanaswamy teaches a set of diagnostic software stored in a third partition and a diagnostic log stored in a fourth partition [*see Fig. 2 and related disclosure*].
7. Claim 8, Narayanaswamy teaches the removable nonvolatile memory device is a compact flash [*flash memory 20 of Fig. 2*].
8. Claim 10, Narayanaswamy teaches the set of boot instructions are contained in firmware within the storage system [*see Figs. 1-3*].
9. Claim 14, Narayanaswamy teaches the current boot kernel location is a first partition of the removable nonvolatile memory device [*see Fig. 2*].
10. Claim 15, Narayanaswamy teaches the last known good kernel location is a second partition of the removable nonvolatile memory device [*the second block always contains a copy of the latest updated boot data*].
11. Claim 16, Narayanaswamy teaches one or more storage disks operatively interconnected to the storage system [*see Figs. 1-3*].
12. Claims 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson et al, US. Pat. No. 5,568,641.
13. Claims 17-18, 21, Nelson teaches a method for installing an upgrade kernel in a computer system having a removable nonvolatile memory device [*flash memory 10 of Fig. 1A*], the removable nonvolatile memory device having at least a first partition and a second partition [*blocks 0-3 of Fig. 1A*], the computer system currently executing a copy of an old kernel stored

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in the first partition of the removable nonvolatile memory device [*abstract*], the method comprising the steps of:

copying the old kernel from the first partition to the second partition [*col. 2, lines 23+*];

adjusting a set of boot variables so that the computer will boot from the second partition [*col. 2, lines 29+*];

copying a stored copy of the update kernel to the first partition [*col. 2, lines 25+*]; and

adjusting the set of boot variables so that the computer will boot from the first partition [*col. 2, lines 29+*].

14. Claim 19, Nelson teaches verifying the copy of the old kernel written to the second partition before adjusting the set of boot variables so that the computer will boot from the second partition [*inherently, the old copy would be verified before adjusting the computer to boot from the second block*].

15. Claims 20 and 22, Narayanaswamy teaches verifying the copy of the upgrade kernel written to the first partition before adjusting the set of boot variables so that the computer will boot from the first partition [*inherently, the updated copy would be verified before adjusting the computer to boot from the first block, see also the discussion about updating boot data in cols. 15 and col. 16, lines 47-49*].

### ***Response to Arguments***

16. Applicant's arguments with respect to claim 1, 3-8, 10, 13-22 have been considered but are moot in view of the new ground(s) of rejection.

17. Applicant's amendment (on ) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

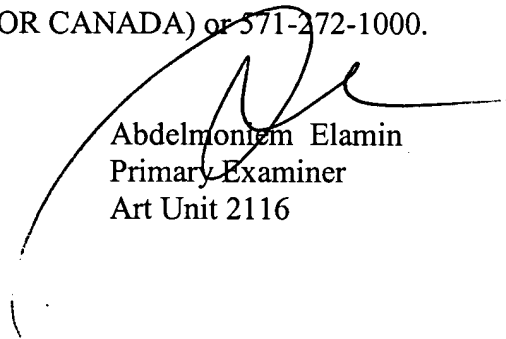
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelmoniem Elamin whose telephone number is 571-2727-3674. The examiner can normally be reached on MON - THUR 10:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Prveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Abdelmonem Elamin  
Primary Examiner  
Art Unit 2116

December 6, 2006